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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,270	01/16/2004	Johannes Hubertus Josephina Moors	081468-0307632	5135
909	7590	01/05/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			KIM, PETER B	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2851	

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,270

Applicant(s)

MOORS ET AL.

Examiner

Peter B. Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's arguments filed on Nov. 17, 2005 have been fully considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al. (Mori) (5,906,429).

Mori discloses a lithographic apparatus and method comprising an illumination system (Fig. 11), a support structure to support a patterning device (9), a substrate table for holding a substrate, a projection system (col. 1, lines 11-20, substrate and a projection system is inherent to an exposure apparatus), a collector (2A, 3A) to receive radiation from a first radiation source (1) and at least one heater (10, 13) for heating the collector. Mori discloses an electrical heater (10) and sensor (11A, 11B, 14A, 14B) for detecting the temperature, the collector including reflecting inner surface (Fig. 11), and a controller (12, 15) to control the temperature.

Mori also discloses a collector (2A) comprising reflecting element (Fig. 11) to receive radiation from a first radiation source (1) and a heater (10) coupled to the reflecting elements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (Mori) in view of Sogard (2005/0099611).

Mori discloses the claimed invention as discussed above; however, Mori does not disclose the heater which includes a second radiation source. Sogard discloses a heater which includes a radiation source in para 0057. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a heater which includes a radiation source to the invention of Mori in order to provide a heating means which does not contact the collector as taught by Sogard in para 0057.

Claims 9- 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (Mori) in view of Bade et al. (Bade) (2003/0223136).

Mori discloses the claimed invention as discussed above; however, Mori does not disclose a heating layer which includes nickel which is vacuum compliant. Bade discloses a heating layer for heating a mirror (abstract) which includes nickel (para 0020). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a heating layer which includes nickel to the invention of Mori in order to prevent over voltage by combining it with current limiter as taught by Bade in para 0020.

Claims 14-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (Mori) in view of Sogard (2003,0235682).

Mori discloses a lithographic apparatus and method comprising an illumination system (Fig. 11), a support structure to support a patterning device (9), a substrate table for holding a substrate, a projection system (col. 1, lines 11-20, substrate and a projection system is inherent to an exposure apparatus), a collector (2A, 3A) to receive radiation from a first radiation source (1) and at least one heater (10, 13) for heating the collector. Mori discloses an electrical heater (10) and sensor (11A, 11B, 14A, 14B) for detecting the temperature, the collector including reflecting inner surface (Fig. 11), and a controller (12, 15) to control the temperature.

Mori also discloses a collector (2A) comprising reflecting element (Fig. 11) to receive radiation from a first radiation source (1) and a heater (10) coupled to the reflecting elements.

However, Mori does not disclose selectively heating the collector, even when the collector receives no radiation from the first radiation source. Mori also does not disclose the heating caused by absorption of radiation. Sogard teaches in the abstract and in para 0036, 0053 and 0055, heating the reflective element even when no radiation from the first source is received. Sogard also discloses heating of the reflective element by radiation pulse (para 0061-0063). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of heating the collector to the invention of Mori in order to reduce thermal distortion.

Response to Arguments

Regarding claims 1, 13, 14, and 32 applicant argues that Mori does not disclose a heater for heating the collector when the collector receives no radiation. Claims 1 and 13 are apparatus claims and Mori teaches all the structures of the apparatus claims, and the apparatus claims are not distinguished by functional recitation. Claims 14 and 32 are method claims, and Mori reference is used in combination with Sogard reference to reject the method claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter B. Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on 8:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Peter B. Kim
Primary Examiner
Art Unit 2851

January 3, 2006